

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1.-13. Cancelled

14. (Currently Amended) A video signal communicator, comprising:

an input to receive a plurality of analog components of a video signal;

a cable having a plurality of twisted pairs, at least two of said pairs having different relative twist rates;

a transmission interface, coupled to the cable, to receive the plurality of analog components and ~~apply~~ selectively couple said plurality of analog components to be carried on selected ones of said plurality of twisted pairs such that a selected first one of said analog components travels on a first one of said twisted pairs having a first relative twist rate and a selected second one of said analog components travels on a second one of said twisted pairs have a second relative twist rate different from the first relative twist rate, the interface selectively coupling said plurality of analog components on said plurality of twisted pairs based on said different relative twist rates;

a reception interface, coupled to the cable, to receive the plurality of analog components from said plurality of twisted pairs.

15. (Original) A video signal communicator according to claim 14, wherein:

the input is a connector port to receive the plurality of analog components of the video signal from a computer.

16. (Original) A video signal communicator according to claim 14, further including:

an output connector port coupled to the reception interface to apply the plurality of analog components of the video signal to a monitor.

17. (Original) A video signal communicator according to claim 14, wherein:

the cable includes four twisted pairs having variable relative twist rates, and the plurality of analog components of the video signal include three analog components applied by the transmission interface to three of the four twisted pairs.

18. (Original) A video signal communicator according to claim 14, wherein:

the plurality of analog components of the video signal include three analog components;
and

the transmission interface includes a switch to selectively apply the three analog components to selected ones of the plurality of twisted pairs.

19. (Currently Amended) A video signal communicator according to claim 14 18, wherein:

the three analog components include a red component, a green component, and a blue component, and

the transmission interface applies the red component to one of said twisted pairs having a first lowest relative twist rate, the green component to one of said twisted pairs having a second lowest relative twist rate, and the blue component to one of said twisted pairs having a third lowest relative twist rate.

20. (Original) A video signal communicator according to claim 14, wherein:

the three analog components include a red component, a green component, and a blue component, and

the transmission interface includes a switch to selectively apply the three analog components to selected ones of the plurality of twisted pairs, wherein the switch defaults to apply the red component to one of said twisted pairs having a first lowest relative twist rate, the green component to one of said twisted pairs having a second lowest relative twist rate, and the blue component to one of said twisted pairs having a third lowest relative twist rate.

21. (Original) A video signal communicator according to claim 19, wherein:

the analog color video signals also include a sync signal; and

the transmission interface also applies the sync signal to one of said twisted pairs having a highest relative twist rate.

22. (Original) A video signal communicator according to claim 14, wherein the reception interface includes at least one delay circuit corresponding to at least one of said twisted pairs to impose a signal delay on said analog component received from said at least one twisted pair.

23. (Original) A video signal communicator according to claim 14, wherein the reception interface includes two delay circuits corresponding to two different ones of said twisted pairs to impose different signal delays on said analog components received from said different ones of said twisted pairs.

24. (Original) A video signal communicator according to claim 23, wherein: the reception interface includes a switch to selectively apply the three analog components to selected ones of the two delay circuits.

25.-32. Cancelled

33. (Original) A video system for communicating video on twisted pair communication lines having variable inherent propagation delay rates, comprising:

video inputs providing respective components of a color video signal,

a first transmitter coupled to a first of said video inputs, comprising:

an input buffer coupled to receive a first of said respective components of the color video signal, and

a differential amplifier coupled to the input buffer and providing a high frequency boost to the first of said respective components, and

an output coupled between the differential amplifier and a first of said communication lines to communicate video component information identifying the first of said respective components to the first of said communication lines, and
a first switch coupled to the twisted pair communication lines to apply said video component information to a selected one of said twisted pair communication lines.

34. (Original) A video system according to claim 33, further comprising:

a second switch communicating with a distal end of said twisted pair communication lines to receive said video component information from said selected one of said twisted pair communication lines,

a delay circuit communicating with said second switch to receive said video component information, and

a monitor output coupled to deliver said video component information to an external video monitor.

35. (Original) A video system according to claim 33, wherein said video inputs provide respective red, green and blue components of an analog color video signal.

36. (Original) A video system according to claim 33, wherein the input buffer is a transistor having a base connected to receive the first of said respective components of the color video signal and an output connected to deliver the first of said respective components to the differential amplifier.

37. (Original) A video system according to claim 33, wherein the differential amplifier further includes a filter to tune said high frequency boost to the first of said respective components.

38. (Original) A video system according to claim 37, wherein the differential amplifier includes first and second transistor amplifiers, a gate of said first transistor amplifier coupled to receive

the first of said respective components from said input buffer, and inputs to said first and second transistor amplifiers being coupled to said filter.

39. (Original) A video system according to claim 38, wherein said first and second transistor amplifiers include respective outputs coupled to deliver said video component information, and a gate of said second transistor amplifier is coupled to said output of said second transistor in a closed feedback loop.

40. (Original) A video system according to claim 39, wherein the closed feedback loop includes a D.C. restorer circuit.

41. (Original) A video system according to claim 34, wherein said delay circuit also includes a switchable bypass circuit to selectively bypass said delay circuit.

42. (Original) A video system according to claim 34, further including a receiver communicating with the delay circuit, said receiver including:

a differential amplifier circuit to boost a high frequency response of said video component information.

43. (Original) A video system according to claim 42, wherein the differential amplifier further includes a filter circuit to tune said high frequency response.

44. (Currently Amended) A video system for communicating video on twisted pair communication lines having variable inherent propagation delay rates, comprising:

a transmitter, comprising:

video inputs providing red, green and blue components of a color video signal,

first, second and third transmitter processing circuits coupled to, respectively, first, second and third ones of said video inputs, each of said transmitter processing circuits including:

a differential amplifier tuned to boost predetermined frequency portions of said red, green and blue components,

first, second and third output pairs coupled between the respective differential amplifier and first, second and third ones of said twisted pair communication lines to communicate video information signals identifying said red, green and blue components from said respective differential amplifiers, and

a first switch coupled to a proximal end of said twisted pair communication lines to apply corresponding ones of said video information signals identifying said red, green, and blue components to selected ones of said twisted pair communication lines based on said variable inherent propagation delay rates, and

a receiver comprising:

a second switch communicating with a distal end of said twisted pair communication lines to receive the video information signals identifying said red, green and blue components from said selected ones of said twisted pair communication lines,

first, second and third input pairs coupled to the second switch to receive on selected ones of said input pairs the video information signals,

first, second and third receiver processing circuits coupled to, respectively, the first, second and third input pairs, each of said ~~transmitter~~ receiver processing circuits including:

a differential amplifier tuned to boost predetermined frequency portions of said video information signals, and

a monitor port coupled to deliver said video component information to an external video monitor.

45. (Original) A video system according to claim 44, wherein the receiver further includes: a green delay circuit between one of said differential amplifiers of said receiver and one of said input pairs corresponding to the green video component.

46. (Original) A video system according to claim 45, wherein the green delay circuit further includes a switchable bypass circuit to bypass the green delay circuit.

47. (Original) A video system according to claim 44, wherein the receiver further includes: a red delay circuit between one of said differential amplifiers of said receiver and one of said input pairs corresponding to the red video component.

48. (Original) A video system according to claim 47, wherein the red delay circuit further includes a switchable bypass circuit to bypass the red delay circuit.

49. (Original) A video system according to claim 44, wherein the receiver further includes:
a green delay circuit having a first delay factor and being between one of said differential amplifiers of said receiver and one of said input pairs corresponding to the green video component, and

a red delay circuit having a second delay factor different from the first delay factor and being between another of said differential amplifiers of said receiver and another of said input pairs corresponding to the red video component.

50. (Original) A video system according to claim 49, wherein the red and green delay circuits further each include a switchable bypass circuit to respectively bypass the red and green delay circuits.

51. (Original) A video system according to claim 49, wherein said input pair corresponding to the blue video component has substantially no corresponding blue delay circuit.

52. Cancelled

53. (New) A video signal communicator according to claim 14, wherein:

the transmission interface includes at least one transmitter to boost a signal strength of at least one of said plurality of analog components.

54. (New) A video signal communicator according to claim 14, wherein:

the transmission interface includes a plurality of transmitters to boost signal strengths of corresponding ones of a plurality of the analog components at respectively differing gains.

55. (New) A video signal communicator according to claim 14, wherein:

the plurality of the analog components includes a red component and the transmission interface selectively couples the red component to a twisted pair having the lowest relative twist rate.

56. (New) A video signal communicator according to claim 14, wherein:

the plurality of the analog components includes a blue component and the transmission interface selectively couples the blue component to a twisted pair having a non-minimum relative twist rate.

57. (New) A video signal communicator according to claim 14, wherein:

the plurality of the analog components includes a red component, a green component, and a blue component, and the transmission interface selectively couples the red component to a twisted pair having the lowest relative twist rate, the green component to a twisted pair having a next-lowest relative twist rate, and the blue component to a twisted pair having a third-lowest relative twist rate.

58. (New) A video signal communicator according to claim 57, wherein:

the plurality of twisted pairs includes more than three twisted pairs.

59. (New) A video signal communicator according to claim 14, wherein:

the plurality of the analog components includes a red component, a green component, and a blue component;

the cable includes four twisted pairs having respectively a first-lowest relative twist rate, a second-lowest relative twist rate, a third-lowest relative twist rate, and a third-lowest relative twist rate; and

said transmission interface selectively couples the red component to the twisted pair having the first-lowest relative twist rate, the green component to the twisted pair having the second-lowest relative twist rate, the blue component to a twisted pair having the third-lowest relative twist rate.

60. (New) A video signal communicator according to claim 54, further including:

a circuit to impose a discrete signal delay on at least one of the analog components as a function of the relative twist rate of a corresponding one of said twist pairs.

61. (New) A method, comprising:

receiving a plurality of analog components of a video signal;

providing a cable having a plurality of twisted pairs;

ranking the plurality of twisted pairs according to their different relative twist rates;

selectively coupling based on said different relative twist rates said plurality of analog components to selected ones of said plurality of twisted pairs at a proximal end of said cable such that a predefined one of said analog components travels on a first one of said twisted pairs having a first twist rate and a predefined second one of said analog components travels on a second one of said twisted pairs having a second twist rate higher than the first relative twist rate; and

receiving the plurality of analog components from said plurality of twisted pairs at a distal end of said twisted pairs.

62. (New) A method according to claim 61, comprising:

selectively coupling a red component of the plurality of analog components to a twisted pair having a lowest relative twist rate.

63. (New) A method according to claim 61, comprising:

selectively coupling a green component of the plurality of analog components to a twisted pair having a non-minimum relative twist rate.

64. (New) A method according to claim 61, comprising:

selectively coupling a blue component of the plurality of analog components to a twisted pair having a non-minimum relative twist rate.

65. (New) A method according to claim 61, comprising:

selectively coupling the plurality of analog components to corresponding twisted pairs having the lowest relative twist rates.